LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Canceled)

2. (Canceled)

3. (Currently Amended) A tubular composite (1) comprising a braid (3) of an electron-conducting material, a layer (5) of an ion-conducting material arranged above the braid and a further braid (11, 17) of an electron-conducting material, wherein the braid (3) of electron-conducting material comprises bundles of electron-conducting material selected from the group consisting of carbon fibers and metal wires, wherein the further braid (11, 17) of electron-conducting material comprises bundles of electron-conducting material selected from the group consisting of carbon fibers and metal wires, wherein the tubular composite is configured as a tube or hose and defines a cavity or lumen, which is enclosed by the braid (3) which lies toward the inside of the composite, the further braid (11, 17) which lies toward the outside of the composite and the layer (5) of ion-conducting material , which lies between the braid (3) and the further braid (11, 17) and wherein the composite has two end-side openings, ~~The tubular composite as claimed in claim 1,~~ and wherein said composite contains ~~containing~~ more than one metal wire in its lumen, in which the more than one metal wires (21) are in the form of a stranded conductor.

4. (Currently Amended) The tubular composite as claimed in claim [[1]] 3, in which the tubular composite (1) is designed as a fuel cell element, and at least one catalyst layer (7, 9) is arranged both between the braid (3) of bundles of electron-conducting material selected from the group consisting of carbon fibers and ~~and/or~~ metal wires ~~of an electron-conducting material~~ and the layer (5) of an ion-conducting material, and above the layer (5) of the ion-conducting material, and in which the outwardly oriented catalyst layer (9) is covered by a further braid (11) of bundles of electron-conducting material selected from the group consisting of carbon fibers and ~~and/or~~ metal wires ~~of an electron-conducting material~~.

5. (Previously presented) The tubular composite as claimed in claim 4, in which the at least one catalyst layer (7,9) contains one or more elements from subgroup VIII of the periodic table of elements.

6. (Currently Amended) The tubular composite as claimed in claim [[1]] 3, further comprising at least one catalyst layer (7,9), wherein said at least one catalyst layer comprises hydrophobic additives and/or additives of proton-conducting material.

7. (Currently Amended) The tubular composite as claimed in claim [[1]] 3, which is designed as an ion-exchange membrane.

8. (Currently Amended) The tubular composite as claimed in claim 7, in which an ion-conductive or electrically insulating spacer (13) is arranged between the braid (3) of bundles of an electron-conducting material selected from the group consisting of carbon fibers and ~~and/or~~ metal wires ~~of an electron-conducting material~~ and the layer (5) of an ion-conducting material.

9. (Currently Amended) The tubular composite as claimed in claim 8, in which a further spacer (15), which is covered by a further braid (17) of bundles an electron-conducting material selected from the group consisting of carbon fibers and ~~and/or~~ metal wires ~~of an electron-conducting material~~, is arranged above the layer (5) of an ion-conducting material.

10. (Previously presented) The tubular composite as claimed in claim 9, in which the further spacer (15) is designed as a braid of electrically insulating or ion-conducting fibers.

11. (Canceled)

12. (Canceled)

13. (Canceled)

14. (Currently Amended) The tubular composite as claimed in claim [[1]] 3, wherein braid (3) comprises metal wires or metal wire bundles and in which the metal is a corrosion-resistant metal or a corrosion-resistant alloy.

15. (Currently Amended) The tubular composite as claimed in claim [[1]] 3, in which the carbon fibers and/or metal wires have a diameter of from 10 to 300 μm.

16. (Currently Amended) The tubular composite as claimed in claim [[1]] 3, which is a hose with an internal diameter of 0.2 to 3 mm.

17. (Currently Amended) The tubular composite as claimed in claim [[1]] 3, in which the ion-conducting material is designed as a membrane.

18. (Currently Amended) The tubular composite as claimed in claim [[1]] 3, in which the ion-conducting material is at least one selected from the group consisting of [[the]] sulfonated aromatic polyether ether ketones, perfluorosulfonic acid polymer, anionic polyaryl ethers and ~~and/or~~ sulfonated perfluorinated polymers.

19. (Currently Amended) The tubular composite as claimed in claim [[1]] 3, in which the ion-conducting material comprises an oxide.

20. (Currently Amended) A module (50) comprising a frame (52) and a multiplicity of tubular composites (1) as claimed in claim [[1]] 3, which are arranged in the frame (52) parallel and longitudinally with respect to the longitudinal axis of the frame (52).

21. (Previously Presented) The module as claimed in claim 20, in which the braid is in electrically conductive contact with an electron-conducting device.

22. (Previously Presented) The module as claimed in claim 21, in which the further braid (11, 17) which lies toward the outer surface of the tubular composite (1) is in electrically conductive contact with an outer connection (31).

23. (Previously Presented) The module as claimed in claim 20, in which the braid (3) which lies toward the lumen (19) of the tubular composite (1) is in electrically conductive contact with one or more metal wires (21).

24. (Previously presented) The module as claimed in claim 20, in which tubular composites (81), which are connected electrically in parallel, are contained in the frame (52).

25. (Previously presented) The module as claimed in claim 20, in which the tubular composites (1) are arranged in a matrix (54) in the frame (52), and the individual frames are electrically connected in series.

26. (Previously presented) A reactor, containing at least one module as claimed in claim 20 and a housing.

27. (Previously Presented) The reactor as claimed in claim 26, which contains at least two modules which are electrically connected in series or in parallel to one another.

28. (Currently Amended) A method for the continuous production of a tubular composite as claimed in claim [[1]] 3 , in which bundles of electron-conducting material selected from the group consisting of carbon fibers and ~~and/or~~ metal wires ~~of an electron-conducting material~~ are braided to form a hose from a braid of this electron-conducting material, ~~and then the ion-conducting material is applied to the outer side of the braid, which is remote from the lumen of the hose~~ and then the outer side of the braid, which is remote from the lumen of the hose, is coated with the ion-conducting material by pouring or spraying the ion-conducting material to the outer side of the braid.

29. (Previously Presented) The method as claimed in claim 28 for producing a tubular composite which is designed as a fuel cell element, wherein at least one catalyst layer is applied to an outer side of the hose and then a further braid of bundles and/or filaments or fibers of an electron-conducting material is then applied to the catalyst layer.

30. (Currently Amended) The method as claimed in claim 28 for producing a tubular composite which is designed as an ion exchange membrane, wherein the bundles of electron-conducting material selected from the group consisting of carbon fibers and ~~and/or~~ metal wires ~~of an electron-conducting material~~ are braided to form a hose from a braid of the electron-conducting material, following which a braid of electrically insulating or ion-conducting fibers is applied as a spacer, followed by a temporary intermediate layer which serves as a base for application of an ion-conducting layer, and then a layer of an ion-conducting material applied to this intermediate layer.

31. (Previously presented) The method as claimed in claim 30, in which the temporary intermediate layer is a PVA (polyvinyl alcohol) layer.

32. (Previously presented) The method as claimed in claim 28, in which a further braid of electrically insulating or ion-conducting fibers is applied as a spacer to the layer of ion-conducting material, and then a further layer of an electron-conducting material is applied.

33. (Previously Presented) The method as claimed in claim 30, in which the temporary intermediate layer is washed out after the tubular composite has been produced.

34. (Previously presented) The tubular composite as claimed in claim 5, in which the at least one catalyst layer (7,9) additionally contains at least one of charcoal, soot and graphite.

35. (Currently Amended) The tubular composite as claimed in claim [[1]] 3, wherein the braids of electron-conducting material selected from the group consisting of carbon fibers and ~~and/or~~ metal wires ~~of an electron-conducting material~~ is an electrode.

36. (Currently Amended) The tubular composite as claimed in claim [[1]] 3, wherein braid (3) comprises said bundles of electron conducting material selected from the group consisting of carbon fibers ~~or bundles of~~ and carbon fibers [[,]] together with metal wires or metal wire bundles and in which the bundles of carbon fibers have a diameter of from 0.1 to 2 mm.

37. (Previously Presented) The tubular composite as claimed in claim 36, wherein the bundles of carbon fibers have a diameter of from 0.2 to 2 mm .

38.(Previously presented) The tubular composite as claimed in claim 19, in which the ion-conducting material comprises a solid oxide.

39.(Previously presented) The module as claimed in claim 20, wherein the frame (52) is of cylindrical design.

40. (Previously presented) The method of claim 28, which further comprises drying the ion-conducting material applied to the outer side of the braid.

41. (Previously presented) The method as claimed in claim 29, which further comprises drying the at least one catalyst layer.

42. (Previously presented) The method as claimed in claim 41, wherein the at least one catalyst layer is dried after at least one of braiding of the hose and after the application of the ion-conducting material.